

**Experiment Number:** 92004-01

**Test Type:** CHRONIC

**Species/Strain:** Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

**Test Compound:** NTP 91/92 diet study

**CAS Number:** DIET9192

**Date Report Requested:** 10/20/2014

**Time Report Requested:** 18:17:45

**First Dose M/F:** NA / NA

**Lab:** NIEHS

**C Number:** C92004

**Lock Date:** Not Entered.

**Cage Range:** All

**Date Range:** All

**Reasons For Removal:** All

**Removal Date Range:** All

**Treatment Groups:** All

**Study Gender:** Both

**PWG Approval Date:** NONE



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Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:46

First Dose M/F: NA / NA

Lab: NIEHS

F 344/N Rat Male 07M	DAY ON TEST																																		
	07	06	07	07	07	07	07	04	07	06	07	07	06	07	07	07	05	05	07	07	06	06	07	07	07	05	07	07	06	07	06				
ANIMAL ID	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00				
	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66				
Leukemia Mononuclear																																			
Adrenal Medulla	+	M	+	+	+	+	+	+																											
Bilateral, Pheochromocytoma Benign				X			X					X		X																					
Leukemia Mononuclear																																			
Pheochromocytoma Benign					X														X																
Pheochromocytoma Malignant																																			
Islets, Pancreatic	+	+	+	+	+	+	+	+	+																										
Adenoma												X																							
Parathyroid Gland	+	+	+	+	+	M	+	M	I																										
Adenoma													X																						
Leukemia Mononuclear, Metastatic, Spleen																																			
Pituitary Gland	+	+	+	+	+	+	+	+	+																										
Leukemia Mononuclear																																			
Pars Distalis, Adenoma	X	X					X				X		X	X	X																				
Pars Distalis, Leukemia Mononuclear																																			
Thyroid Gland	+	+	+	+	+	+	+	+	+																										
C Cell, Adenoma																																			
Cystadenoma																																			
Leukemia Mononuclear																																			

General Body System

- Peritoneum
- Tunica Vaginal, Mesothelioma Malignant

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
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Lab: NIEHS

F 344/N Rat Male  
07M

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	6	7	7	7	7	4	7	6	7	7	6	7	7	5	5	7	7	6	6	7	7	7	5	7	7	6	7	6	
	2	5	0	2	0	2	0	2	2	1	2	0	2	2	2	8	9	2	2	5	0	2	0	7	2	2	2	0	2	
	7	3	1	7	1	8	1	1	8	7	6	1	5	6	2	6	3	0	6	6	3	0	8	1	1	5	6	7	8	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	9	
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	

Leukemia Mononuclear

X

Thymoma Benign

**Integumentary System**

Mammary Gland

+

+ +

+

Adenocarcinoma

X

Adenoma

Carcinoma

X

Fibroadenoma

X

X

Skin

+

+

+ +

Fibroma

X

Keratoacanthoma

X

X

Melanoma Malignant

Squamous Cell Carcinoma

Subcut Tiss, Fibroma

X

**Musculoskeletal System**

NONE

**Nervous System**

Brain

Brain, Cerebellum

Leukemia Mononuclear

**Respiratory System**

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 Lab: NIEHS

F 344/N Rat Male 07M	DAY ON TEST	ANIMAL ID																													
		0701	0702	0703	0704	0705	0706	0707	0708	0709	0710	0711	0712	0713	0714	0715	0716	0717	0718	0719	0720	0721	0722	0723	0724	0725	0726	0727	0728	0729	0730
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		7	7	7	7	7	6	7	7	7	4	6	7	5	7	5	7	6	6	4	7	6	5	7	7	7	7	6	7	7	
		0	2	2	0	0	2	1	2	2	5	3	0	7	2	4	2	0	0	8	2	2	8	2	2	2	2	5	2	2	
		1	8	8	9	1	4	2	7	7	0	9	1	5	6	1	1	4	9	5	5	4	3	8	8	9	9	1	9	9	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
		9	9	9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1		
		2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	1	2	3	4	5	6	7	8	9	

**Alimentary System**

Liver	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hepatocellular Adenoma																															
Hepatocellular Carcinoma																															
Leukemia Mononuclear	X		X	X	X	X					X		X		X		X					X	X					X			
Mesentery				+							+								+						+						
Lipoma																															
Mesothelioma Malignant, Metastatic, Testes																															
Pancreas	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	A		+	+	+	+	+	+	+	+	
Leukemia Mononuclear				X		X									X		X	X					X								
Stomach, Forestomach				+																				+	+						
Stomach, Glandular																															
Tongue						+																									
Squamous Cell Papilloma					X																										

**Cardiovascular System**

Heart	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Leukemia Mononuclear				X		X					X		X		X		X	X					X							
Schwannoma Malignant					X																									

**Endocrine System**

Adrenal Cortex	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Adenoma																														

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Lab: NIEHS

F 344/N Rat Male 07M	DAY ON TEST																														
	07	07	07	07	07	06	07	07	07	07	04	06	07	05	07	05	07	06	06	04	07	06	05	07	07	07	07	06	07	07	
ANIMAL ID	001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	
Leukemia Mononuclear			X												X		X	X				X									
Adrenal Medulla	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Bilateral, Pheochromocytoma Benign			X							X						X															
Leukemia Mononuclear	X		X	X		X					X				X		X	X				X									
Pheochromocytoma Benign			X														X	X											X	X	
Pheochromocytoma Malignant																													X		
Islets, Pancreatic	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	A		+	+	+	+	+	+	+	+	+	
Adenoma															X				X					X		X					
Parathyroid Gland	+	+	M	M	+	+	M	M	M	M	+	+	+	+	+	M	+	+	M			M	M	+	M	+	+	+	+	M	M
Adenoma																															
Leukemia Mononuclear, Metastatic, Spleen																X															
Pituitary Gland	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	M	+	+	+	+	+	+	
Leukemia Mononuclear																															
Pars Distalis, Adenoma	X		X		X		X		X	X	X									X		X	X			X	X	X	X	X	
Pars Distalis, Leukemia Mononuclear			X													X		X	X												
Thyroid Gland	+	+	+	+	+	+	M	+	+	M	+	+	+	+	+	M	+	+	M			+	+	+	+	+	+	+	+	M	+
C Cell, Adenoma											X																				
Cystadenoma																															
Leukemia Mononuclear																X															
<b>General Body System</b>																															
Peritoneum																														+	
Tunica Vaginal, Mesothelioma Malignant																														X	

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Lab: NIEHS

F 344/N Rat Male 07M	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		7	7	7	7	7	6	7	7	7	4	6	7	5	7	5	7	6	6	4	7	6	5	7	7	7	6	7	7	
		0	2	2	0	0	2	1	2	2	2	5	3	0	7	2	4	2	0	0	8	2	2	2	2	5	2	2	2	
		1	8	8	9	1	4	2	7	7	0	9	1	5	6	1	1	4	9	5	5	4	3	8	8	9	9	1	9	9
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	9	9	9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	
	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	

Leukemia Mononuclear X X  
 Thymoma Benign X X

**Integumentary System**

Mammary Gland +  
 Adenocarcinoma X  
 Adenoma X  
 Carcinoma X  
 Fibroadenoma X  
 Skin + + + + + +  
 Fibroma X  
 Keratoacanthoma X  
 Melanoma Malignant X  
 Squamous Cell Carcinoma X  
 Subcut Tiss, Fibroma X

**Musculoskeletal System**

NONE

**Nervous System**

Brain +  
 Brain, Cerebellum +  
 Leukemia Mononuclear X

**Respiratory System**

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Experiment Number: 92004-01

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Species/Strain: Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:48

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Male  
07M**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7	7	7	7	7	6	7	7	7	4	6	7	5	7	5	7	6	6	4	7	6	5	7	7	7	7	6	7	7
	0	2	2	0	0	2	1	2	2	5	3	0	7	2	4	2	0	0	8	2	2	2	2	2	5	2	2	2	2
	1	8	8	9	1	4	2	7	7	0	9	1	5	6	1	1	4	9	5	5	4	3	8	8	9	9	1	9	9
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	9	9	9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0

**Respiratory System**

Lung	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Alveolar/Bronchiolar Adenoma																														
Alveolar/Bronchiolar Carcinoma										X																				
Leukemia Mononuclear	X		X	X	X	X					X	X	X	X	X	X				X				X						
Squamous Cell Carcinoma																														

**Special Senses System**

NONE																														
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**Urinary System**

Kidney	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Leukemia Mononuclear			X			X						X	X	X	X				X				X						
Urinary Bladder	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Leukemia Mononuclear			X			X							X		X														

**SYSTEMIC LESIONS**

Multiple Organ	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Leukemia Mononuclear	X		X	X	X	X		X		X	X	X	X	X	X	X			X	X		X		X					
Mesothelioma Malignant																			X		X								

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First Dose M/F: NA / NA  
Lab: NIEHS

DAY ON TEST

F 344/N Rat Male  
07M

ANIMAL ID

\*TOTALS

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**Alimentary System**

Liver	57
Hepatocellular Adenoma	3
Hepatocellular Carcinoma	1
Leukemia Mononuclear	30
Mesentery	8
Lipoma	1
Mesothelioma Malignant, Metastatic, Testes	1
Pancreas	56
Leukemia Mononuclear	13
Stomach, Forestomach	4
Stomach, Glandular	1
Tongue	1
Squamous Cell Papilloma	1

**Cardiovascular System**

Heart	57
Leukemia Mononuclear	17
Schwannoma Malignant	2

**Endocrine System**

Adrenal Cortex	56
Adenoma	1
Leukemia Mononuclear	11

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F 344/N Rat Male

07M

ANIMAL ID

\*TOTALS

Adrenal Medulla	56
Bilateral, Pheochromocytoma Benign	7
Leukemia Mononuclear	17
Pheochromocytoma Benign	10
Pheochromocytoma Malignant	1
Islets, Pancreatic	56
Adenoma	5
Parathyroid Gland	36
Adenoma	1
Leukemia Mononuclear, Metastatic, Spleen	1
Pituitary Gland	55
Leukemia Mononuclear	1
Pars Distalis, Adenoma	26
Pars Distalis, Leukemia Mononuclear	7
Thyroid Gland	51
C Cell, Adenoma	5
Cystadenoma	1
Leukemia Mononuclear	1
<b>General Body System</b>	
Peritoneum	1
Tunica Vaginal, Mesothelioma Malignant	1
<b>Genital System</b>	
Penis	1

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Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

07M

ANIMAL ID

\*TOTALS

Preputial Gland	5
Adenoma	4
Seminal Vesicle	2
Testes	56
Bilateral, Interstit Cell, Adenoma	36
Interstit Cell, Adenoma	12
Leukemia Mononuclear	1
Mesothelioma Malignant	1
Tunic, Mesothelioma Malignant	1
<b>Hematopoietic System</b>	
Lymph Node	1
Mediastinal, Leukemia Mononuclear	1
Lymph Node, Mandibular	2
Leukemia Mononuclear	1
Lymph Node, Mesenteric	56
Leukemia Mononuclear	20
Spleen	57
Leukemia Mononuclear	32
Osteosarcoma	1
Thymus	30
Leukemia Mononuclear	3
Thymoma Benign	2

**Integumentary System**

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F 344/N Rat Male  
07M

ANIMAL ID

\*TOTALS

Mammary Gland	5
Adenocarcinoma	1
Adenoma	1
Carcinoma	1
Fibroadenoma	2
Skin	10
Fibroma	2
Keratoacanthoma	3
Melanoma Malignant	1
Squamous Cell Carcinoma	1
Subcut Tiss, Fibroma	2
<b>Musculoskeletal System</b>	
NONE	
<b>Nervous System</b>	
Brain	1
Brain, Cerebellum	1
Leukemia Mononuclear	1
<b>Respiratory System</b>	
Lung	57
Alveolar/Bronchiolar Adenoma	1
Alveolar/Bronchiolar Carcinoma	1
Leukemia Mononuclear	26

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+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 92004-01  
Test Type: CHRONIC  
Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: NTP 91/92 diet study  
CAS Number: DIET9192

Date Report Requested: 10/20/2014  
Time Report Requested: 18:17:48  
First Dose M/F: NA / NA  
Lab: NIEHS

DAY ON TEST

F 344/N Rat Male  
07M

ANIMAL ID

\*TOTALS

---

Squamous Cell Carcinoma	1
<b>Special Senses System</b>	
NONE	
<b>Urinary System</b>	
Kidney	57
Leukemia Mononuclear	16
Urinary Bladder	55
Leukemia Mononuclear	8
<b>SYSTEMIC LESIONS</b>	
Multiple Organ	57
Leukemia Mononuclear	32
Mesothelioma Malignant	3

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:48

First Dose M/F: NA / NA

Lab: NIEHS

F 344/N Rat Male 91M	DAY ON TEST																													
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7	7	7	7	7	7	7	5	7	7	7	7	7	7	5	3	6	7	6	7	7	7	7	7	7	6	7	7	7	
	0	2	2	2	2	2	2	7	2	0	2	2	0	2	4	6	2	2	3	2	2	0	2	2	2	2	0	2	0	1
	1	0	7	2	7	7	7	5	7	1	8	7	8	8	5	5	9	9	9	6	6	1	6	6	8	8	3	8	9	6
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	
	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	

Alimentary System

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hepatocellular Adenoma																															
Leukemia Mononuclear	X	X		X	X	X	X		X	X				X	X	X				X	X	X			X	X	X	X	X	X	
Mesentery																															
Mesothelioma Malignant																															
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Leukemia Mononuclear																															

Cardiovascular System

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Leukemia Mononuclear	X	X		X	X					X					X	X															
Schwannoma Malignant																															

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Leukemia Mononuclear																															
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Bilateral, Pheochromocytoma Benign																															
Leukemia Mononuclear	X	X		X			X							X	X		X														
Pheochromocytoma Benign				X		X							X	X				X		X			X			X					
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Adenoma							X					X																			

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically







Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:49

First Dose M/F: NA / NA

Lab: NIEHS

F 344/N Rat Male 91M	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	ANIMAL ID	4	6	5	7	7	7	7	7	7	7	5	7	6	7	7	5	7	7	7	3	5	7	7	7	7	6	7	7
		8	4	6	2	0	0	2	2	0	2	2	3	2	0	0	2	2	2	3	6	1	2	0	2	1	2	2	
		2	6	2	7	1	1	6	6	1	7	7	8	8	1	3	8	8	7	7	1	2	7	1	9	5	9	9	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	4	
	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0

Alimentary System

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hepatocellular Adenoma																													
Leukemia Mononuclear		X			X	X		X	X		X	X	X		X	X			X	X			X		X		X		
Mesentery																													
Mesothelioma Malignant																													
Pancreas	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Leukemia Mononuclear					X					X																			

Cardiovascular System

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Leukemia Mononuclear		X			X				X			X			X				X						X		X		
Schwannoma Malignant										X													X						

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Leukemia Mononuclear									X		X				X									X		X		
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Bilateral, Pheochromocytoma Benign	X																											
Leukemia Mononuclear					X				X						X								X					
Pheochromocytoma Benign		X																								X		X
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Adenoma						X							X						X									

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:49

First Dose M/F: NA / NA

Lab: NIEHS

F 344/N Rat Male 91M	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		4	6	5	7	7	7	7	7	7	7	7	5	7	6	7	7	5	7	7	7	3	5	7	7	7	7	6	7	7	7	7	7	7
	ANIMAL ID	8	4	6	2	0	0	2	2	0	2	2	5	2	3	2	0	0	2	2	2	3	6	1	2	0	2	1	2	2	2	2	2	2
	2	6	2	7	1	1	6	6	1	7	7	7	7	8	8	1	3	8	8	7	7	1	2	7	1	9	5	9	9	9	9	9	9	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

Leukemia Mononuclear, Metastatic, Spleen																																			
Parathyroid Gland	M	+	M	+	+	+	M		+	+	+	M	+	+	+	+	+	M	+	+	+	+	+	+	M	M	+	M	+						
Leukemia Mononuclear, Metastatic, Spleen																																			
Pituitary Gland	A	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Pars Distalis, Adenoma		X		X	X						X		X	X	X	X	X		X			X	X	X	X								X		
Pars Distalis, Leukemia Mononuclear						X		X																				X							
Thyroid Gland	+	+	+	+	+	+	M	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
C Cell, Adenoma	X	X														X																		X	
Follicular Cel, Adenoma																											X								
Leukemia Mononuclear																																			

**General Body System**

NONE																																			
<b>Genital System</b>																																			
Preputial Gland								+							M																				
Adenoma							X																												
Seminal Vesicle											+																								
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Bilateral, Interstit Cell, Adenoma				X		X		X		X	X	X			X		X		X	X			X	X	X	X	X	X	X	X	X	X	X	X	
Interstit Cell, Adenoma	X			X		X		X					X		X						X														
Interstit Cell, Mesothelioma Malignant																																			

**Hematopoietic System**

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 92004-01  
 Test Type: CHRONIC  
 Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: NTP 91/92 diet study  
 CAS Number: DIET9192

Date Report Requested: 10/20/2014  
 Time Report Requested: 18:17:49  
 First Dose M/F: NA / NA  
 Lab: NIEHS

F 344/N Rat Male 91M	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			4	6	5	7	7	7	7	7	7	7	5	7	6	7	7	5	7	7	7	3	5	7	7	7	7	6	7	7	7	7	7
		8	4	6	2	0	0	2	2	0	2	2	3	2	0	0	2	2	2	3	6	1	2	0	2	1	2	2	2	2	2	2	2
		2	6	2	7	1	1	6	6	1	7	7	8	8	1	3	8	8	7	7	1	2	7	1	9	5	9	9	9	9	9	9	9
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3

Lymph Node																																				
Mediastinal, Leukemia Mononuclear																																				
Lymph Node, Mesenteric	A	+	+	+	+	+	M	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Leukemia Mononuclear		X			X	X			X	X					X	X				X		X		X		X										
Spleen	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Leukemia Mononuclear		X			X	X		X	X		X	X	X		X	X			X	X		X	X		X	X										
Thymus	+	+	+	+	M	+	M	+	+	+	+	M	M	M	+	+	M	+	+	+	M	+	+	+	+	+	+	+	M	+	+	+	+	+		
Leukemia Mononuclear					X				X						X																					

**Integumentary System**

Mammary Gland																																				
Fibroadenoma																																				
Skin								+					+	+			+						+	+												
Basal Cell Carcinoma																																				
Fibroma									X														X													
Subcut Tiss, Fibroma																	X								X											
Trichoepithelioma														X																						

**Musculoskeletal System**

NONE																																					
<b>Nervous System</b>																																					
Brain																																					
Brain, Cerebrum																																					+

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 92004-01  
 Test Type: CHRONIC  
 Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: NTP 91/92 diet study  
 CAS Number: DIET9192

Date Report Requested: 10/20/2014  
 Time Report Requested: 18:17:49  
 First Dose M/F: NA / NA  
 Lab: NIEHS

F 344/N Rat Male  
 91M

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	6	5	7	7	7	7	7	7	7	7	5	7	6	7	7	5	7	7	7	3	5	7	7	7	7	6	7	7		
	8	4	6	2	0	0	2	2	0	2	2	5	2	3	2	0	0	2	2	2	3	6	1	2	0	2	1	2	2		
	2	6	2	7	1	1	6	6	1	7	7	7	7	8	8	1	3	8	8	7	7	1	2	7	1	9	5	9	9		
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4		
	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0		

Leukemia Mononuclear

X

**Respiratory System**

Lung

+ + + + + + + + + + M + + + + + + + + + + + + + + + + + + +

Leukemia Mononuclear

X X

Mesothelioma Malignant

X

**Special Senses System**

Zymbal's Gland

+

Adenoma

X

**Urinary System**

Kidney

+ +

Leukemia Mononuclear

X X

Urinary Bladder

+ + + + + + + + + + M + + + + + + + + + + + + + + + + + + +

Leukemia Mononuclear

X X X X X X X X X X

**SYSTEMIC LESIONS**

Multiple Organ

+ +

Leukemia Mononuclear

X X

Mesothelioma Malignant

X

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:50

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male  
91M

ANIMAL ID

\*TOTALS

**Alimentary System**

|                        |    |
|------------------------|----|
| Liver                  | 60 |
| Hepatocellular Adenoma | 1  |
| Leukemia Mononuclear   | 31 |
| Mesentery              | 4  |
| Mesothelioma Malignant | 1  |
| Pancreas               | 59 |
| Leukemia Mononuclear   | 5  |

**Cardiovascular System**

|                      |    |
|----------------------|----|
| Heart                | 60 |
| Leukemia Mononuclear | 15 |
| Schwannoma Malignant | 2  |

**Endocrine System**

|  |    |
|--|----|
| Adrenal Cortex                           | 60 |
| Leukemia Mononuclear                     | 9  |
| Adrenal Medulla                          | 60 |
| Bilateral, Pheochromocytoma Benign       | 2  |
| Leukemia Mononuclear                     | 10 |
| Pheochromocytoma Benign                  | 10 |
| Islets, Pancreatic                       | 59 |
| Adenoma                                  | 6  |
| Leukemia Mononuclear, Metastatic, Spleen | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:50

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

91M

ANIMAL ID

\*TOTALS

---

|  |    |
|--|----|
| Parathyroid Gland                        | 41 |
| Leukemia Mononuclear, Metastatic, Spleen | 1  |
| Pituitary Gland                          | 58 |
| Pars Distalis, Adenoma                   | 25 |
| Pars Distalis, Leukemia Mononuclear      | 7  |
| Thyroid Gland                            | 58 |
| C Cell, Adenoma                          | 9  |
| Follicular Cel, Adenoma                  | 1  |
| Leukemia Mononuclear                     | 1  |

**General Body System**

NONE

**Genital System**

|  |    |
|--|----|
| Preputial Gland                        | 3  |
| Adenoma                                | 3  |
| Seminal Vesicle                        | 3  |
| Testes                                 | 60 |
| Bilateral, Interstit Cell, Adenoma     | 42 |
| Interstit Cell, Adenoma                | 11 |
| Interstit Cell, Mesothelioma Malignant | 1  |

**Hematopoietic System**

|                                   |   |
|-----------------------------------|---|
| Lymph Node                        | 1 |
| Mediastinal, Leukemia Mononuclear | 1 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:50

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

91M

ANIMAL ID

\*TOTALS

|                               |    |
|-------------------------------|----|
| Lymph Node, Mesenteric        | 57 |
| Leukemia Mononuclear          | 22 |
| Spleen                        | 59 |
| Leukemia Mononuclear          | 30 |
| Thymus                        | 46 |
| Leukemia Mononuclear          | 6  |
| <b>Integumentary System</b>   |    |
| Mammary Gland                 | 1  |
| Fibroadenoma                  | 1  |
| Skin                          | 9  |
| Basal Cell Carcinoma          | 2  |
| Fibroma                       | 2  |
| Subcut Tiss, Fibroma          | 3  |
| Trichoepithelioma             | 1  |
| <b>Musculoskeletal System</b> |    |
| NONE                          |    |
| <b>Nervous System</b>         |    |
| Brain                         | 1  |
| Brain, Cerebrum               | 1  |
| Leukemia Mononuclear          | 1  |
| <b>Respiratory System</b>     |    |
| Lung                          | 59 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01  
Test Type: CHRONIC  
Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: NTP 91/92 diet study  
CAS Number: DIET9192

Date Report Requested: 10/20/2014  
Time Report Requested: 18:17:50  
First Dose M/F: NA / NA  
Lab: NIEHS

DAY ON TEST

F 344/N Rat Male  
91M

| ANIMAL ID                    | *TOTALS |
|------------------------------|---------|
| Leukemia Mononuclear         | 24      |
| Mesothelioma Malignant       | 1       |
| <b>Special Senses System</b> |         |
| Zymbal's Gland               | 1       |
| Adenoma                      | 1       |
| <b>Urinary System</b>        |         |
| Kidney                       | 60      |
| Leukemia Mononuclear         | 13      |
| Urinary Bladder              | 59      |
| Leukemia Mononuclear         | 7       |
| <b>SYSTEMIC LESIONS</b>      |         |
| Multiple Organ               | 60      |
| Leukemia Mononuclear         | 31      |
| Mesothelioma Malignant       | 3       |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically









Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:51

First Dose M/F: NA / NA

Lab: NIEHS

F 344/N Rat Male  
92M

| DAY ON TEST             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANIMAL ID               | 5 | 7 | 7 | 7 | 6 | 5 | 3 | 4 | 5 | 4 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |
|                         | 4 | 2 | 2 | 2 | 2 | 9 | 7 | 6 | 5 | 9 | 2 | 2 | 2 | 2 | 9 | 2 | 2 | 2 | 2 | 2 | 0 | 8 | 2 | 8 | 2 | 2 | 2 | 2 | 2 |   |
|                         | 0 | 8 | 8 | 8 | 5 | 5 | 9 | 9 | 4 | 7 | 8 | 8 | 5 | 8 | 0 | 7 | 6 | 7 | 7 | 7 | 1 | 3 | 8 | 9 | 8 | 7 | 7 | 5 | 7 |   |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                         | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |   |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |   |
|                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |   |
| Leukemia Mononuclear    |   |   |   |   |   |   |   |   |   |   | X |   | X |   |   |   |   |   |   | X |   |   |   |   |   |   |   | X |   | X |
| Papilloma               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |
| <b>SYSTEMIC LESIONS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Multiple Organ          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Leukemia Mononuclear    |   |   |   |   |   | X |   | X |   | X | X |   | X |   |   | X | X | X |   | X | X |   |   | X |   | X | X | X | X |   |
| Mesothelioma Malignant  |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:51

First Dose M/F: NA / NA

Lab: NIEHS

|                         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F 344/N Rat Male<br>92M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         |             | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 7 | 5 | 6 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 5 |   |   |
|                         |             | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 8 | 2 | 0 | 1 | 4 | 2 | 2 | 8 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 3 | 2 | 8 |   |   |
|                         |             | 7 | 7 | 7 | 1 | 6 | 6 | 6 | 6 | 1 | 6 | 5 | 0 | 9 | 9 | 5 | 1 | 2 | 6 | 5 | 9 | 1 | 1 | 7 | 7 | 7 | 9 | 1 | 6 | 9 | 0 |   |
|                         | ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         |             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|                         |             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
|                         |             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 0 |

Alimentary System

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Liver                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | X |   |   | X | X | X | X |   |   |   |   | X |   |   |   |   |   | X | X |   |   | X | X |   |   | X |   |   |   |   |   |   |   |
| Mesentery            |   |   |   |   |   |   | + |   | + | + |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pancreas             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| Salivary Glands      |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

Cardiovascular System

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Heart                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

Endocrine System

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Adrenal Medulla                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Bilateral, Pheochromocytoma Benign       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear                     |   |   |   |   | X |   |   |   | X |   |   |   |   |   |   |   | X |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |  |
| Pheochromocytoma Benign                  |   |   |   | X |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | X |  |
| Islets, Pancreatic                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Adenoma                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Parathyroid Gland                        | + | M | M | + | M | + | + | M | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:51

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Male<br>92M                | DAY ON TEST | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |   |   |
|  |             | 7         | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 7 | 5 | 6 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 5 |   |   |
|  |             | 2         | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 8 | 2 | 0 | 1 | 4 | 2 | 2 | 8 | 0 | 0 | 2 | 2 | 2 | 0 | 3 | 2 | 8 |   |   |
|  |             | 7         | 7 | 7 | 1 | 6 | 6 | 6 | 1 | 6 | 5 | 0 | 9 | 9 | 5 | 1 | 2 | 6 | 5 | 9 | 1 | 1 | 7 | 7 | 7 | 9 | 1 | 6 | 9 | 0 |   |
| Adenoma                                |             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | X |
| Pituitary Gland                        |             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| Leukemia Mononuclear                   |             | 3         | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |   |   |
| Pars Distalis, Adenoma                 |             | 3         | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |   |   |
| Pars Distalis, Carcinoma               |             | 2         | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |   |   |
| Pars Distalis, Leukemia Mononuclear    |             |           |   |   |   | X | X |   |   | X |   |   |   |   |   |   | X |   |   |   |   |   | X | X | X | X |   | X |   |   |   |
| Thyroid Gland                          |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |
| C Cell, Adenoma                        |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Follicular Cel, Adenoma                |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>General Body System</b>             |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Peritoneum                             |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mesothelium, Mesothelioma Malignant    |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Tunica Vaginal, Mesothelioma Malignant |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Genital System</b>                  |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Preputial Gland                        |             |           |   | + |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adenoma                                |             |           |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Squamous Cell Papilloma                |             |           |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Seminal Vesicle                        |             |           |   |   | + |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Testes                                 |             |           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Bilateral, Interstit Cell, Adenoma     |             | X         | X | X | X | X | X | X | X | X |   |   |   |   | X |   |   |   |   |   | X | X | X | X |   | X |   |   | X | X |   |
| Interstit Cell, Adenoma                |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   | X |   | X | X |   |   |   |
| Leukemia Mononuclear                   |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
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Experiment Number: 92004-01  
 Test Type: CHRONIC  
 Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: NTP 91/92 diet study  
 CAS Number: DIET9192

Date Report Requested: 10/20/2014  
 Time Report Requested: 18:17:52  
 First Dose M/F: NA / NA  
 Lab: NIEHS

F 344/N Rat Male  
 92M

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 7 | 5 | 6 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 5 |
|             | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 8 | 2 | 0 | 1 | 4 | 2 | 2 | 8 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 3 | 2 | 8 |
|             | 7 | 7 | 7 | 1 | 6 | 6 | 6 | 1 | 6 | 5 | 0 | 9 | 9 | 5 | 1 | 2 | 6 | 5 | 9 | 1 | 1 | 7 | 7 | 7 | 9 | 1 | 6 | 9 | 0 |
| ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
|             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

**Musculoskeletal System**

Bone +  
 Vertebra, Osteosarcoma X

**Nervous System**

Brain, Cerebellum  
 Leukemia Mononuclear

**Respiratory System**

Lung +  
 Alveolar/Bronchiolar Adenoma  
 Alveolar/Bronchiolar Carcinoma  
 Leukemia Mononuclear X X X X X  
 Osteosarcoma, Metastatic, Bone X  
 Squamous Cell Carcinoma

**Special Senses System**

Zymbal's Gland +  
 Carcinoma X

**Urinary System**

Kidney +  
 Leukemia Mononuclear X X X  
 Urinary Bladder + + + + + + + + + + + + + M + + + + +

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
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Experiment Number: 92004-01  
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 Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: NTP 91/92 diet study  
 CAS Number: DIET9192

Date Report Requested: 10/20/2014  
 Time Report Requested: 18:17:52  
 First Dose M/F: NA / NA  
 Lab: NIEHS

F 344/N Rat Male  
 92M

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 7 | 5 | 6 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 5 |   |   |
|             | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 8 | 2 | 0 | 1 | 4 | 2 | 2 | 8 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 3 | 2 | 8 |   |
|             | 7 | 7 | 7 | 1 | 6 | 6 | 6 | 1 | 6 | 5 | 0 | 9 | 9 | 5 | 1 | 2 | 6 | 5 | 9 | 1 | 1 | 7 | 7 | 7 | 9 | 1 | 6 | 9 | 0 |   |
| ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |   |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |   |
|             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |   |

Leukemia Mononuclear  
 Papilloma

X

X

SYSTEMIC LESIONS

Multiple Organ  
 Leukemia Mononuclear  
 Mesothelioma Malignant

|                        |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Multiple Organ         | + | + | + | + | + | + | + | + | + | + | + | + |  |  |  |  |  |  | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear   | X |   |   | X | X | X | X |   |   |   | X |   |  |  |  |  |  |  | X | X |   |   | X | X |   |   |   |   |   |   |   |  |
| Mesothelioma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 92004-01  
Test Type: CHRONIC  
Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: NTP 91/92 diet study  
CAS Number: DIET9192

Date Report Requested: 10/20/2014  
Time Report Requested: 18:17:52  
First Dose M/F: NA / NA  
Lab: NIEHS

DAY ON TEST

F 344/N Rat Male  
92M

ANIMAL ID

\*TOTALS

---

**Alimentary System**

|                      |    |
|----------------------|----|
| Liver                | 56 |
| Leukemia Mononuclear | 25 |
| Mesentery            | 5  |
| Pancreas             | 52 |
| Leukemia Mononuclear | 5  |
| Salivary Glands      | 1  |

**Cardiovascular System**

|                      |    |
|----------------------|----|
| Heart                | 56 |
| Leukemia Mononuclear | 9  |

**Endocrine System**

|  |    |
|--|----|
| Adrenal Cortex                           | 56 |
| Leukemia Mononuclear                     | 7  |
| Adrenal Medulla                          | 56 |
| Bilateral, Pheochromocytoma Benign       | 1  |
| Leukemia Mononuclear                     | 14 |
| Pheochromocytoma Benign                  | 6  |
| Islets, Pancreatic                       | 52 |
| Adenoma                                  | 1  |
| Leukemia Mononuclear, Metastatic, Spleen | 1  |
| Parathyroid Gland                        | 40 |
| Adenoma                                  | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
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Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

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CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:52

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

92M

ANIMAL ID

\*TOTALS

|   |    |
|---|----|
| Pituitary Gland                                   | 56 |
| Leukemia Mononuclear                              | 1  |
| Pars Distalis, Adenoma                            | 18 |
| Pars Distalis, Carcinoma                          | 1  |
| Pars Distalis, Leukemia Mononuclear               | 5  |
| Thyroid Gland                                     | 56 |
| C Cell, Adenoma                                   | 1  |
| Follicular Cel, Adenoma                           | 1  |
| <b>General Body System</b>                        |    |
| Peritoneum  | 2  |
| Mesothelium, Mesothelioma Malignant               | 1  |
| Tunica Vaginal, Mesothelioma Malignant            | 1  |
| <b>Genital System</b>                             |    |
| Preputial Gland                                   | 3  |
| Adenoma   | 2  |
| Squamous Cell Papilloma                           | 1  |
| Seminal Vesicle                                   | 5  |
| Testes  | 56 |
| Bilateral, Interstit Cell, Adenoma                | 37 |
| Interstit Cell, Adenoma                           | 14 |
| Leukemia Mononuclear                              | 1  |
| Mesothelioma Malignant, Metastatic,<br>Peritoneum | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

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Experiment Number: 92004-01  
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Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: NTP 91/92 diet study  
CAS Number: DIET9192

Date Report Requested: 10/20/2014  
Time Report Requested: 18:17:52  
First Dose M/F: NA / NA  
Lab: NIEHS

DAY ON TEST

F 344/N Rat Male  
92M

ANIMAL ID

\*TOTALS

---

**Hematopoietic System**

|                                   |    |
|-----------------------------------|----|
| Lymph Node                        | 2  |
| Mediastinal, Leukemia Mononuclear | 2  |
| Lymph Node, Mandibular            | 1  |
| Leukemia Mononuclear              | 1  |
| Lymph Node, Mesenteric            | 54 |
| Leukemia Mononuclear              | 16 |
| Spleen                            | 56 |
| Fibroma                           | 1  |
| Fibrous Histiocytoma              | 1  |
| Leukemia Mononuclear              | 27 |
| Thymus                            | 38 |
| Leukemia Mononuclear              | 4  |

**Integumentary System**

|                        |   |
|------------------------|---|
| Mammary Gland          | 3 |
| Fibroadenoma           | 2 |
| Inguinal, Fibroadenoma | 1 |
| Skin                   | 3 |
| Keratoacanthoma        | 2 |
| Subcut Tiss, Fibroma   | 1 |

**Musculoskeletal System**

|      |   |
|------|---|
| Bone | 1 |
|------|---|

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
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Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:52

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

92M

ANIMAL ID

\*TOTALS

|                                |    |
|--------------------------------|----|
| Vertebra, Osteosarcoma         | 1  |
| <b>Nervous System</b>          |    |
| Brain, Cerebellum              | 1  |
| Leukemia Mononuclear           | 1  |
| <b>Respiratory System</b>      |    |
| Lung                           | 56 |
| Alveolar/Bronchiolar Adenoma   | 1  |
| Alveolar/Bronchiolar Carcinoma | 1  |
| Leukemia Mononuclear           | 21 |
| Osteosarcoma, Metastatic, Bone | 1  |
| Squamous Cell Carcinoma        | 1  |
| <b>Special Senses System</b>   |    |
| Zymbal's Gland                 | 1  |
| Carcinoma                      | 1  |
| <b>Urinary System</b>          |    |
| Kidney                         | 56 |
| Leukemia Mononuclear           | 12 |
| Urinary Bladder                | 52 |
| Leukemia Mononuclear           | 7  |
| Papilloma                      | 1  |
| <b>SYSTEMIC LESIONS</b>        |    |

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:52

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

**F 344/N Rat Male**  
**92M**

ANIMAL ID

\*TOTALS

|                        |    |
|------------------------|----|
| Multiple Organ         | 56 |
| Leukemia Mononuclear   | 27 |
| Mesothelioma Malignant | 2  |

\*\*\*END OF MALE DATA\*\*\*

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:52

First Dose M/F: NA / NA

Lab: NIEHS

F 344/N Rat Female  
07F

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 7 | 7 | 3 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 7 | 4 | 7 | 5 | 7 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 5 |   |   |   |   |   |
|             | 2 | 2 | 7 | 0 | 2 | 5 | 2 | 8 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 7 | 1 | 2 | 2 | 2 | 0 | 3 | 2 | 0 | 2 | 0 | 6 | 9 |   |   |   |   |   |
|             | 8 | 8 | 3 | 1 | 8 | 6 | 8 | 9 | 6 | 8 | 6 | 6 | 5 | 6 | 4 | 8 | 9 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 6 | 1 | 9 | 5 | 0 | 0 |   |   |   |   |
| ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |   |

Alimentary System

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Intestine Large, Colon                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Liver   | + | + | + | + | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Histiocytic Sarcoma                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear                                    |   |   | X |   | X |   |   |   | X | X |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |  |
| Pheochromocytoma Malignant, Metastatic, Adrenal Medulla |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Mesentery   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Granulocytic                                   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Pancreas  | + | + | A | + | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Granulocytic                                   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

Cardiovascular System

|                      |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------------|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Heart                | + | + | + | + | + | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

Endocrine System

|                                       |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex                        | + | + | + | + | + | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Leukemia Mononuclear                  |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Adrenal Medulla                       | + | + | + | + | + | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Bilateral, Pheochromocytoma Malignant |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear                  |   |   |   |   |   |   |  |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor

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Experiment Number: 92004-01  
 Test Type: CHRONIC  
 Species/Strain: Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: NTP 91/92 diet study  
 CAS Number: DIET9192

Date Report Requested: 10/20/2014  
 Time Report Requested: 18:17:53  
 First Dose M/F: NA / NA  
 Lab: NIEHS

| F 344/N Rat Female<br>07F      | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|--------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                | ANIMAL ID   | 7 | 7 | 3 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 7 | 7 | 4 | 7 | 5 | 7 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 5 |   |
|                                |             | 2 | 2 | 7 | 0 | 2 | 5 | 2 | 8 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 7 | 1 | 2 | 2 | 2 | 2 | 2 | 0 | 3 | 2 | 0 | 2 | 0 | 2 | 6 | 9 |   |
|                                |             | 8 | 8 | 3 | 1 | 8 | 6 | 8 | 9 | 6 | 8 | 6 | 6 | 5 | 6 | 4 | 8 | 9 | 7 | 8 | 8 | 9 | 9 | 9 | 9 | 1 | 1 | 6 | 1 | 9 | 5 | 0 |   |
|                                |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                                |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                                |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                                |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                                |             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 1 |   |
| Tubulostromal Carcinoma        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Uterus                         |             | + | + | + | + | + |   | + |   | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Endometrium, Polyp Stromal     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| <b>Hematopoietic System</b>    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mesenteric         |             | + | + | + | + | + |   | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Granulocytic          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Leukemia Mononuclear           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Spleen                         |             | + | + | + | + | + |   | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Granulocytic          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Leukemia Mononuclear           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Thymus                         |             | + | M | M | + | + |   | M |   | M | + | + | M | + | + | + | + | M | + | + | M | + | + | M | M | + | M | M | + | + | + | + |   |
| Leukemia Granulocytic          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Leukemia Mononuclear           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Osteosarcoma, Metastatic, Bone |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Thymoma Benign                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Integumentary System</b>    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mammary Gland                  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adenocarcinoma                 |             |   | + |   | + |   |   |   |   |   | + |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   | + | + | + | + | + | + | + |
| Adenoma                        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Fibroadenoma                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Fibroadenoma, Multiple         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Skin                           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically



Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:53

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Female<br>07F | DAY ON TEST |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|                           | 07          | 07 | 03 | 07 | 07 | 06 | 07 | 05 | 07 | 07 | 07 | 07 | 04 | 07 | 05 | 07 | 05 | 06 | 07 | 07 | 07 | 07 | 07 | 05 | 07 | 07 | 07 | 06 | 05 |    |
| ANIMAL ID                 | 08          | 08 | 03 | 01 | 08 | 06 | 08 | 09 | 06 | 08 | 06 | 06 | 05 | 06 | 04 | 08 | 09 | 07 | 08 | 08 | 09 | 09 | 09 | 01 | 01 | 06 | 01 | 09 | 05 | 00 |
| Urinary Bladder           | +           | +  | A  | +  | +  |    | +  |    | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  |    |
| Adenoma                   |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Leukemia Granulocytic     |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| <b>SYSTEMIC LESIONS</b>   |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Multiple Organ            | +           | +  | +  | +  | +  |    | +  |    | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  |    |
| Histiocytic Sarcoma       |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Leukemia Granulocytic     |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Leukemia Mononuclear      |             |    | X  |    | X  |    |    |    |    |    |    | X  | X  |    |    |    |    |    |    | X  |    |    |    |    |    |    |    |    | X  |    |

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:53

First Dose M/F: NA / NA

Lab: NIEHS

F 344/N Rat Female 07F

Table with columns for DAY ON TEST and ANIMAL ID, containing numerical data for 28 animals.

Alimentary System

Table listing Alimentary System findings such as Intestine Large, Colon, Liver, and Leukemia Mononuclear with corresponding symbols (+, X, blank).

Cardiovascular System

Table listing Cardiovascular System findings such as Heart and Leukemia Mononuclear with corresponding symbols (+, X, blank).

Endocrine System

Table listing Endocrine System findings such as Adrenal Cortex, Adrenal Medulla, and Leukemia Mononuclear with corresponding symbols (+, M, X, blank).

\* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

Experiment Number: 92004-01

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Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:53

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Female<br>07F                 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |   |   |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|   |             | 6 | 5 | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 5 | 7 | 7 | 5 | 7 | 7 | 7 | 5 | 7 | 5 | 5 | 3 | 7 | 5 | 7 | 6 | 7 | 7 |   |   |   |
|   |             | 1 | 4 | 2 | 3 | 2 | 4 | 2 | 2 | 6 | 3 | 0 | 2 | 9 | 2 | 2 | 0 | 2 | 2 | 9 | 2 | 6 | 8 | 5 | 2 | 6 | 2 | 7 | 2 | 2 |   |
|   |             | 6 | 0 | 9 | 9 | 9 | 1 | 9 | 9 | 5 | 4 | 1 | 8 | 3 | 8 | 6 | 1 | 6 | 6 | 6 | 6 | 2 | 9 | 9 | 6 | 6 | 2 | 9 | 0 | 9 | 9 |
|   | ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pheochromocytoma Benign                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Islets, Pancreatic                        |             | + | + | + | + | + | + | + | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Parathyroid Gland                         |             | + | + | M | + | + | + | + | M | M |   | + | M | + | + | + | + | M | M | + | + | + | M | M | M | + | + | + | + |   |   |
| Pituitary Gland                           |             | + | + | + | + | + | + | + | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Pars Distalis, Adenoma                    |             | X |   |   |   |   | X | X | X |   | X | X |   |   |   | X | X |   |   |   | X |   | X | X | X |   | X | X | X |   |   |
| Pars Distalis, Leukemia Mononuclear       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thyroid Gland                             |             | + | + | + | + | + | + | + | + | M |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| C Cell, Adenoma                           |             |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cystadenoma                               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Follicular Cel, Adenoma                   |             |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>General Body System</b>                |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| NONE                                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Genital System</b>                     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Clitoral Gland                            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + | + | + |   |   |   |   |   | + |   |   |   |   |   |   |   |
| Adenoma                                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Carcinoma                                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Granulocytic, Metastatic, Spleen |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Ovary                                     |             | + | + | + | M | + | + | + | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Granulosa Cell Tumor Benign               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Granulocytic                     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically



Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:54

First Dose M/F: NA / NA

Lab: NIEHS

F 344/N Rat Female  
07F

|             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|             | 6 | 5 | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 5 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 5 | 3 | 7 | 5 | 7 | 6 | 7 | 7 | 7 |   |
|             | 1 | 4 | 2 | 3 | 2 | 4 | 2 | 2 | 6 | 3 | 0 | 2 | 9 | 2 | 2 | 0 | 2 | 2 | 9 | 2 | 6 | 8 | 5 | 2 | 6 | 2 | 7 | 2 | 2 |   |
|             | 6 | 0 | 9 | 9 | 9 | 1 | 9 | 9 | 5 | 4 | 1 | 8 | 3 | 8 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 2 | 9 | 9 | 6 | 2 | 9 | 0 | 9 | 9 |
| ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |   |
|             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |   |

Carcinoma, Metastatic, Zymbal'S Gland

X

Subcut Tiss, Lipoma

Musculoskeletal System

Bone

Rib, Osteosarcoma

Nervous System

NONE

Respiratory System

Lung

+ +

Carcinoma, Metastatic, Zymbal'S Gland

X

Leukemia Granulocytic

Leukemia Mononuclear

X X

X

X X

X

Osteosarcoma, Metastatic, Bone

Special Senses System

Zymbal's Gland

+

Carcinoma

X

Urinary System

Kidney

+ +

Leukemia Granulocytic

Leukemia Mononuclear

X

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:54

First Dose M/F: NA / NA

Lab: NIEHS

F 344/N Rat Female  
07F

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 6 | 5 | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 5 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 5 | 3 | 7 | 5 | 7 | 6 | 7 | 7 |   |
|             | 1 | 4 | 2 | 3 | 2 | 4 | 2 | 2 | 6 | 3 | 0 | 2 | 9 | 2 | 2 | 0 | 2 | 2 | 9 | 2 | 6 | 8 | 5 | 2 | 6 | 2 | 7 | 2 | 2 |
|             | 6 | 0 | 9 | 9 | 9 | 1 | 9 | 9 | 5 | 4 | 1 | 8 | 3 | 8 | 6 | 1 | 6 | 6 | 6 | 6 | 2 | 9 | 9 | 6 | 2 | 9 | 0 | 9 | 9 |
| ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |   |
|             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Urinary Bladder         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Adenoma                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Granulocytic   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>SYSTEMIC LESIONS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Multiple Organ          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Histiocytic Sarcoma     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Granulocytic   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear    |   |   |   | X |   |   | X | X | X |   |   |   | X | X |   |   |   |   |   | X | X |   |   |   | X |   |   |   |   |  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
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Experiment Number: 92004-01  
Test Type: CHRONIC  
Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: NTP 91/92 diet study  
CAS Number: DIET9192

Date Report Requested: 10/20/2014  
Time Report Requested: 18:17:54  
First Dose M/F: NA / NA  
Lab: NIEHS

DAY ON TEST

F 344/N Rat Female  
07F

ANIMAL ID

\*TOTALS

**Alimentary System**

|  |    |
|--|----|
| Intestine Large, Colon                                     | 1  |
| Liver  | 56 |
| Histiocytic Sarcoma  | 1  |
| Leukemia Mononuclear                                       | 15 |
| Pheochromocytoma Malignant, Metastatic,<br>Adrenal Medulla | 1  |
| Mesentery  | 2  |
| Leukemia Granulocytic                                      | 1  |
| Pancreas   | 55 |
| Leukemia Granulocytic                                      | 1  |
| Leukemia Mononuclear                                       | 1  |

**Cardiovascular System**

|                      |    |
|----------------------|----|
| Heart                | 56 |
| Leukemia Mononuclear | 1  |

**Endocrine System**

|                                       |    |
|---------------------------------------|----|
| Adrenal Cortex                        | 56 |
| Leukemia Mononuclear                  | 2  |
| Adrenal Medulla                       | 55 |
| Bilateral, Pheochromocytoma Malignant | 1  |
| Leukemia Mononuclear                  | 3  |
| Pheochromocytoma Benign               | 3  |
| Islets, Pancreatic                    | 55 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
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Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

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Date Report Requested: 10/20/2014

Time Report Requested: 18:17:54

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

07F

ANIMAL ID

\*TOTALS

|                                     |    |
|-------------------------------------|----|
| Parathyroid Gland                   | 36 |
| Pituitary Gland                     | 55 |
| Pars Distalis, Adenoma              | 33 |
| Pars Distalis, Leukemia Mononuclear | 2  |
| Thyroid Gland                       | 54 |
| C Cell, Adenoma                     | 4  |
| Cystadenoma                         | 1  |
| Follicular Cel, Adenoma             | 1  |
| Leukemia Mononuclear                | 1  |

**General Body System**

NONE

**Genital System**

|   |    |
|---|----|
| Clitoral Gland                            | 7  |
| Adenoma                                   | 3  |
| Carcinoma                                 | 3  |
| Leukemia Granulocytic, Metastatic, Spleen | 1  |
| Ovary                                     | 55 |
| Granulosa Cell Tumor Benign               | 2  |
| Leukemia Granulocytic                     | 1  |
| Leukemia Mononuclear                      | 1  |
| Tubulostromal Carcinoma                   | 1  |
| Uterus                                    | 52 |
| Endometrium, Polyp Stromal                | 3  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01  
Test Type: CHRONIC  
Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
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First Dose M/F: NA / NA  
Lab: NIEHS

DAY ON TEST

F 344/N Rat Female  
07F

ANIMAL ID

\*TOTALS

---

**Hematopoietic System**

|                                |    |
|--------------------------------|----|
| Lymph Node, Mesenteric         | 56 |
| Leukemia Granulocytic          | 1  |
| Leukemia Mononuclear           | 5  |
| Spleen                         | 56 |
| Leukemia Granulocytic          | 1  |
| Leukemia Mononuclear           | 15 |
| Thymus                         | 40 |
| Leukemia Granulocytic          | 1  |
| Leukemia Mononuclear           | 2  |
| Osteosarcoma, Metastatic, Bone | 1  |
| Thymoma Benign                 | 1  |

**Integumentary System**

|                                       |    |
|---------------------------------------|----|
| Mammary Gland                         | 29 |
| Adenocarcinoma                        | 2  |
| Adenoma                               | 1  |
| Fibroadenoma                          | 23 |
| Fibroadenoma, Multiple                | 4  |
| Skin                                  | 4  |
| Carcinoma, Metastatic, Zymbal'S Gland | 1  |
| Subcut Tiss, Lipoma                   | 1  |

**Musculoskeletal System**

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:54

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

**F 344/N Rat Female  
07F**

| ANIMAL ID                             | *TOTALS |
|---------------------------------------|---------|
| Bone                                  | 1       |
| Rib, Osteosarcoma                     | 1       |
| <b>Nervous System</b>                 |         |
| NONE                                  |         |
| <b>Respiratory System</b>             |         |
| Lung                                  | 56      |
| Carcinoma, Metastatic, Zymbal'S Gland | 1       |
| Leukemia Granulocytic                 | 1       |
| Leukemia Mononuclear                  | 12      |
| Osteosarcoma, Metastatic, Bone        | 1       |
| <b>Special Senses System</b>          |         |
| Zymbal's Gland                        | 1       |
| Carcinoma                             | 1       |
| <b>Urinary System</b>                 |         |
| Kidney                                | 56      |
| Leukemia Granulocytic                 | 1       |
| Leukemia Mononuclear                  | 1       |
| Urinary Bladder                       | 54      |
| Adenoma                               | 1       |
| Leukemia Granulocytic                 | 1       |
| <b>SYSTEMIC LESIONS</b>               |         |

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01  
Test Type: CHRONIC  
Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: NTP 91/92 diet study  
CAS Number: DIET9192

Date Report Requested: 10/20/2014  
Time Report Requested: 18:17:54  
First Dose M/F: NA / NA  
Lab: NIEHS

DAY ON TEST

F 344/N Rat Female  
07F

ANIMAL ID

\*TOTALS

|                       |    |
|-----------------------|----|
| Multiple Organ        | 56 |
| Histiocytic Sarcoma   | 1  |
| Leukemia Granulocytic | 1  |
| Leukemia Mononuclear  | 15 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically



**Experiment Number:** 92004-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
**Test Compound:** NTP 91/92 diet study  
**CAS Number:** DIET9192

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 18:17:55  
**First Dose M/F:** NA / NA  
**Lab:** NIEHS

| F 344/N Rat Female<br>91F           | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|-------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                     |             | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 5 | 7 | 5 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 6 |
| ANIMAL ID                           | 2           | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 0 | 2 | 0 | 5 | 2 | 2 | 7 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 1 | 2 | 7 |
|                                     | 9           | 9 | 9 | 9 | 9 | 8 | 9 | 1 | 9 | 9 | 9 | 8 | 9 | 0 | 1 | 6 | 6 | 2 | 9 | 6 | 9 | 1 | 9 | 9 | 1 | 2 | 7 | 9 | 3 |   |
| Pars Distalis, Adenoma              |             | X |   | X | X |   | X |   | X | X | X | X |   |   | X | X | X |   |   | X |   | X | X | X | X | X |   |   |   |   |
| Pars Distalis, Leukemia Mononuclear |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pars Intermed, Adenoma              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |
| Thyroid Gland                       |             | + | M | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M |
| C Cell, Adenoma                     |             |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>General Body System</b>          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| NONE                                |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Genital System</b>               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Clitoral Gland                      |             |   |   |   |   |   |   | + | + |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |
| Adenoma                             |             |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |
| Squamous Cell Papilloma             |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Ovary                               |             | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | M |
| Granulosa Cell Tumor Benign         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear                |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Uterus                              |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | M |
| Endometrium, Polyp Stromal          |             |   |   |   | X |   |   |   | X |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear                |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Sarcoma Stromal                     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |
| <b>Hematopoietic System</b>         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mesenteric              |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | M |
| Leukemia Mononuclear                |             |   |   |   |   |   |   | X | X |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue  
M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

**Experiment Number:** 92004-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
**Test Compound:** NTP 91/92 diet study  
**CAS Number:** DIET9192

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 18:17:55  
**First Dose M/F:** NA / NA  
**Lab:** NIEHS

| F 344/N Rat Female<br>91F     | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|-------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                               | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>6<br>3<br>8      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>6<br>3<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>6<br>3<br>8      | 0<br>6<br>5<br>9      | 0<br>7<br>2<br>6      | 0<br>7<br>2<br>6      | 0<br>5<br>7<br>2      | 0<br>7<br>2<br>9      | 0<br>5<br>2<br>6      | 0<br>7<br>2<br>9      | 0<br>4<br>2<br>1      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>1      | 0<br>7<br>2<br>2      | 0<br>6<br>1<br>7      | 0<br>7<br>2<br>9      | 0<br>6<br>7<br>3      |                       |
| ANIMAL ID                     | 0<br>0<br>1<br>2<br>1 | 0<br>0<br>1<br>2<br>2 | 0<br>0<br>1<br>2<br>3 | 0<br>0<br>1<br>2<br>4 | 0<br>0<br>1<br>2<br>5 | 0<br>0<br>1<br>2<br>6 | 0<br>0<br>1<br>2<br>7 | 0<br>0<br>1<br>2<br>8 | 0<br>0<br>1<br>2<br>9 | 0<br>0<br>1<br>3<br>0 | 0<br>0<br>1<br>3<br>1 | 0<br>0<br>1<br>3<br>2 | 0<br>0<br>1<br>3<br>3 | 0<br>0<br>1<br>4<br>4 | 0<br>0<br>1<br>5<br>5 | 0<br>0<br>1<br>5<br>5 |
| Spleen                        | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | M                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | M                     |
| Leukemia Mononuclear          | X                     |                       |                       |                       |                       |                       |                       | X                     | X                     | X                     | X                     |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       | X                     | X                     |                       |                       |
| Thymus                        | M                     | M                     | +                     | +                     | +                     | M                     | M                     | +                     | M                     | +                     | +                     | +                     | +                     | +                     | M                     | M                     | +                     | M                     | M                     | +                     | +                     | +                     | M                     | +                     | +                     | M                     | +                     | +                     | M                     | M                     |
| <b>Integumentary System</b>   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Mammary Gland                 | +                     |                       | +                     | +                     |                       |                       |                       |                       |                       |                       | +                     | +                     |                       |                       |                       |                       | +                     |                       | +                     |                       |                       |                       |                       |                       | +                     | +                     |                       | +                     |                       |                       |
| Adenoma                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Carcinoma                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Fibroadenoma                  | X                     |                       | X                     | X                     |                       |                       |                       |                       |                       |                       | X                     | X                     |                       |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       | X                     | X                     |                       |                       |                       |                       |
| Fibroadenoma, Multiple        |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |
| Skin                          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | +                     |                       |                       |
| Subcut Tiss, Fibroma          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| <b>Musculoskeletal System</b> |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| NONE                          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| <b>Nervous System</b>         |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| NONE                          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| <b>Respiratory System</b>     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Lung                          | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | M                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | M                     |
| Alveolar/Bronchiolar Adenoma  |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Leukemia Mononuclear          |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |
| <b>Special Senses System</b>  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically



Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:55

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female  
91F**

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 7 | 7 | 7 | 7 | 4 | 7 | 5 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 |   |   |
|             | 2 | 2 | 2 | 0 | 3 | 2 | 3 | 2 | 2 | 4 | 2 | 2 | 0 | 2 | 2 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 1 | 2 | 2 | 2 |   |
|             | 9 | 9 | 9 | 1 | 5 | 7 | 4 | 7 | 4 | 7 | 6 | 6 | 9 | 6 | 5 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 6 | 8 | 8 | 6 |
| ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|             | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |
|             | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |   |
|             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

**Alimentary System**

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Liver                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hepatocellular Adenoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Leukemia Mononuclear   |   | X |   | X |   |   |   |   | X | X |   |   | X |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   | X |   |
| Mesentery              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |
| Pancreas               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Leukemia Mononuclear   |   |   |   | X |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Stomach, Forestomach   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Stomach, Glandular     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**Cardiovascular System**

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**Endocrine System**

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear    |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adrenal Medulla         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear    |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Pheochromocytoma Benign |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Islets, Pancreatic      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland       | M | + | + | M | M | + | + | + | M | + | + | + | + | + | + | + | + | + | M | + | M | + | + | M | + | + | + | M | + |
| Pituitary Gland         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:55

First Dose M/F: NA / NA

Lab: NIEHS

F 344/N Rat Female 91F

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 7 | 7 | 7 | 7 | 4 | 7 | 5 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 |
|             | 2 | 2 | 2 | 0 | 3 | 2 | 3 | 2 | 2 | 4 | 2 | 2 | 0 | 2 | 2 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 1 | 2 | 2 | 2 |
|             | 9 | 9 | 9 | 1 | 5 | 7 | 4 | 7 | 4 | 7 | 6 | 6 | 9 | 6 | 5 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 6 | 8 | 8 |
| ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|             | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |   |
|             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |   |

|                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pars Distalis, Adenoma              |   |   | X |   |   | X |   | X |   |   | X |   |   | X | X |   | X |   | X |   | X | X | X |   | X | X |   | X | X |
| Pars Distalis, Leukemia Mononuclear |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pars Intermed, Adenoma              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thyroid Gland                       | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| C Cell, Adenoma                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>General Body System</b>          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| NONE                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Genital System</b>               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Clitoral Gland                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   |   | + |   |   |   |   |   |
| Adenoma                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |
| Squamous Cell Papilloma             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| Ovary                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Granulosa Cell Tumor Benign         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear                |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Uterus                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Endometrium, Polyp Stromal          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear                |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Sarcoma Stromal                     |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Hematopoietic System</b>         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mesenteric              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear                |   |   |   | X |   |   |   |   | X | X |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   | X |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:56

First Dose M/F: NA / NA

Lab: NIEHS

F 344/N Rat Female 91F

| DAY ON TEST          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANIMAL ID            | 7 | 7 | 7 | 7 | 4 | 7 | 5 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 |
|                      | 2 | 2 | 2 | 0 | 3 | 2 | 3 | 2 | 2 | 4 | 2 | 2 | 0 | 2 | 2 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 1 | 2 | 2 | 2 |
|                      | 9 | 9 | 9 | 1 | 5 | 7 | 4 | 7 | 4 | 7 | 6 | 6 | 9 | 6 | 5 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 6 | 8 | 6 |
| Spleen               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Leukemia Mononuclear | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Thymus               | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|                      | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |
|                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

|                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Spleen                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear          |   | X |   | X |   |   |   |   | X | X |   |   | X |   |   |   | X |   |   |   |   |   |   |   | X |   | X |   |  |
| Thymus                        | + | + | + | M | M | + | + | + | + | + | M | M | + | + | + | + | + | + | M | + | + | M | + | M | + | + | M | + |  |
| <b>Integumentary System</b>   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Mammary Gland                 | + |   | + |   |   | + | + |   |   |   | + | + | + |   |   | + | + | + |   |   | + | + |   | + |   | + | + | + |  |
| Adenoma                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Carcinoma                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Fibroadenoma                  | X |   | X |   |   | X | X |   |   |   | X | X | X |   |   | X | X | X |   |   |   |   | X |   | X |   |   |   |  |
| Fibroadenoma, Multiple        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | X |   |   |   |   | X | X |  |
| Skin                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Subcut Tiss, Fibroma          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Musculoskeletal System</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| NONE                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Nervous System</b>         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| NONE                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Respiratory System</b>     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Lung                          | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Alveolar/Bronchiolar Adenoma  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear          |   |   |   | X |   |   |   |   | X | X |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   | X |  |
| <b>Special Senses System</b>  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:56

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Female<br>91F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           |             | 7 | 7 | 7 | 7 | 4 | 7 | 5 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 |   |
|                           |             | 2 | 2 | 2 | 0 | 3 | 2 | 3 | 2 | 2 | 4 | 2 | 2 | 0 | 2 | 2 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 1 | 2 | 2 | 2 |
|                           | 9           | 9 | 9 | 1 | 5 | 7 | 4 | 7 | 4 | 7 | 6 | 6 | 9 | 6 | 5 | 6 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 6 | 8 | 8 | 6 |
| ANIMAL ID                 | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                           | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                           | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |
|                           | 5           | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |
|                           | 2           | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |   |
| Lacrimal Gland            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adenoma                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Urinary System</b>     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Kidney                    | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Leukemia Mononuclear      |             |   |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Urinary Bladder           | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + |   |
| Leukemia Mononuclear      |             |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| <b>SYSTEMIC LESIONS</b>   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Multiple Organ            | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Leukemia Mononuclear      |             | X |   | X |   |   |   |   | X | X |   |   |   | X |   |   |   | X |   |   |   |   |   |   |   |   | X |   | X |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 92004-01  
Test Type: CHRONIC  
Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: NTP 91/92 diet study  
CAS Number: DIET9192

Date Report Requested: 10/20/2014  
Time Report Requested: 18:17:56  
First Dose M/F: NA / NA  
Lab: NIEHS

DAY ON TEST

F 344/N Rat Female  
91F

ANIMAL ID

\*TOTALS

---

**Alimentary System**

|                        |    |
|------------------------|----|
| Liver                  | 56 |
| Hepatocellular Adenoma | 1  |
| Leukemia Mononuclear   | 15 |
| Mesentery              | 3  |
| Pancreas               | 58 |
| Leukemia Mononuclear   | 5  |
| Stomach, Forestomach   | 1  |
| Stomach, Glandular     | 1  |

**Cardiovascular System**

|                      |    |
|----------------------|----|
| Heart                | 57 |
| Leukemia Mononuclear | 3  |

**Endocrine System**

|                         |    |
|-------------------------|----|
| Adrenal Cortex          | 58 |
| Leukemia Mononuclear    | 3  |
| Adrenal Medulla         | 58 |
| Leukemia Mononuclear    | 5  |
| Pheochromocytoma Benign | 2  |
| Islets, Pancreatic      | 58 |
| Parathyroid Gland       | 40 |
| Pituitary Gland         | 57 |
| Pars Distalis, Adenoma  | 31 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 92004-01  
 Test Type: CHRONIC  
 Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: NTP 91/92 diet study  
 CAS Number: DIET9192

Date Report Requested: 10/20/2014  
 Time Report Requested: 18:17:56  
 First Dose M/F: NA / NA  
 Lab: NIEHS

DAY ON TEST

F 344/N Rat Female  
 91F

ANIMAL ID

\*TOTALS

|                                     |    |
|-------------------------------------|----|
| Pars Distalis, Leukemia Mononuclear | 2  |
| Pars Intermed, Adenoma              | 1  |
| Thyroid Gland                       | 55 |
| C Cell, Adenoma                     | 1  |
| <b>General Body System</b>          |    |
| NONE                                |    |
| <b>Genital System</b>               |    |
| Clitoral Gland                      | 5  |
| Adenoma                             | 3  |
| Squamous Cell Papilloma             | 1  |
| Ovary                               | 57 |
| Granulosa Cell Tumor Benign         | 1  |
| Leukemia Mononuclear                | 2  |
| Uterus                              | 57 |
| Endometrium, Polyp Stromal          | 5  |
| Leukemia Mononuclear                | 2  |
| Sarcoma Stromal                     | 2  |
| <b>Hematopoietic System</b>         |    |
| Lymph Node, Mesenteric              | 58 |
| Leukemia Mononuclear                | 8  |
| Spleen                              | 58 |
| Leukemia Mononuclear                | 16 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:56

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female  
91F

ANIMAL ID

\*TOTALS

|                               |    |
|-------------------------------|----|
| Thymus                        | 39 |
| <b>Integumentary System</b>   |    |
| Mammary Gland                 | 26 |
| Adenoma                       | 1  |
| Carcinoma                     | 1  |
| Fibroadenoma                  | 20 |
| Fibroadenoma, Multiple        | 5  |
| Skin                          | 2  |
| Subcut Tiss, Fibroma          | 1  |
| <b>Musculoskeletal System</b> |    |
| NONE                          |    |
| <b>Nervous System</b>         |    |
| NONE                          |    |
| <b>Respiratory System</b>     |    |
| Lung                          | 57 |
| Alveolar/Bronchiolar Adenoma  | 1  |
| Leukemia Mononuclear          | 7  |
| <b>Special Senses System</b>  |    |
| Lacrimal Gland                | 1  |
| Adenoma                       | 1  |
| <b>Urinary System</b>         |    |

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

**Experiment Number:** 92004-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
**Test Compound:** NTP 91/92 diet study  
**CAS Number:** DIET9192

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 18:17:56  
**First Dose M/F:** NA / NA  
**Lab:** NIEHS

DAY ON TEST

**F 344/N Rat Female**  
**91F**

ANIMAL ID

\*TOTALS

|                         |    |
|-------------------------|----|
| Kidney                  | 58 |
| Leukemia Mononuclear    | 4  |
| Urinary Bladder         | 56 |
| Leukemia Mononuclear    | 3  |
| <b>SYSTEMIC LESIONS</b> |    |
| Multiple Organ          | 58 |
| Leukemia Mononuclear    | 16 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
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Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:56

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Female<br>92F           | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|-------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                     | 0<br>7<br>1           | 0<br>7<br>6           | 0<br>7<br>9           | 0<br>7<br>9           | 0<br>5<br>1           | 0<br>7<br>7           | 0<br>7<br>1           | 0<br>7<br>7           | 0<br>7<br>7           | 0<br>7<br>7           | 0<br>7<br>7           | 0<br>7<br>7           | 0<br>7<br>7           | 0<br>5<br>7           | 0<br>7<br>7           | 0<br>6<br>6           | 0<br>7<br>6           | 0<br>6<br>7           | 0<br>7<br>3           | 0<br>7<br>8           | 0<br>6<br>6           | 0<br>7<br>6           | 0<br>7<br>6           | 0<br>7<br>6           | 0<br>7<br>6           | 0<br>7<br>6           | 0<br>7<br>6           | 0<br>6<br>6           | 0<br>7<br>6           | 0<br>6<br>6           |
| ANIMAL ID                           | 0<br>0<br>2<br>4<br>1 | 0<br>0<br>2<br>4<br>2 | 0<br>0<br>2<br>4<br>3 | 0<br>0<br>2<br>4<br>4 | 0<br>0<br>2<br>4<br>5 | 0<br>0<br>2<br>4<br>4 | 0<br>0<br>2<br>4<br>4 | 0<br>0<br>2<br>4<br>4 | 0<br>0<br>2<br>4<br>4 | 0<br>0<br>2<br>4<br>5 |
| Pars Distalis, Adenoma              | X                     |                       |                       | X                     | X                     |                       |                       |                       |                       |                       |                       |                       | X                     |                       | X                     | X                     |                       | X                     |                       | X                     | X                     |                       | X                     | X                     | X                     | X                     | X                     | X                     | X                     | X                     |
| Pars Distalis, Leukemia Mononuclear | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       |                       |                       |
| Thyroid Gland                       | +                     | +                     | +                     | +                     | +                     | +                     |                       | +                     | +                     | +                     | +                     | +                     | M                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | M                     | +                     | +                     | M                     | +                     | +                     | +                     |
| C Cell, Adenoma                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| C Cell, Carcinoma                   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| <b>General Body System</b>          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| NONE                                |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| <b>Genital System</b>               |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Clitoral Gland                      |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Adenoma                             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Fibroma                             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Squamous Cell Papilloma             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Ovary                               | +                     | +                     | +                     | +                     | +                     | +                     |                       | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     |
| Leiomyoma                           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Leukemia Mononuclear                | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Uterus                              | +                     | +                     | +                     | +                     | +                     | +                     |                       | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     |
| Endometrium, Polyp Stromal          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       | X                     |                       |                       |                       |                       |                       | X                     |                       |                       |                       |                       | X                     |                       |                       |
| <b>Hematopoietic System</b>         |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Lymph Node, Mesenteric              | +                     | +                     | +                     | +                     | +                     | +                     |                       | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     |
| Leukemia Mononuclear                | X                     |                       |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       | X                     |                       |                       |                       |                       |                       |
| Spleen                              | +                     | +                     | +                     | +                     | +                     | +                     |                       | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:57

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Female<br>92F         | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   |   |   |   |
|-----------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---|---|---|---|---|---|---|---|
|                                   | 0<br>7<br>0<br>1 | 0<br>7<br>0<br>6 | 0<br>7<br>0<br>9 | 0<br>7<br>0<br>9 | 0<br>5<br>0<br>1 | 0<br>7<br>0<br>7 | 0<br>5<br>0<br>9 | 0<br>7<br>0<br>9 | 0<br>7<br>0<br>9 | 0<br>7<br>0<br>9 | 0<br>6<br>0<br>8 | 0<br>7<br>0<br>8 | 0<br>6<br>0<br>3 | 0<br>7<br>0<br>8 | 0<br>7<br>0<br>6 | 0<br>6<br>0<br>4 | 0<br>3<br>0<br>8 | 0<br>6<br>0<br>4 | 0<br>6<br>0<br>7 | 0<br>7<br>0<br>9 |   |   |   |   |   |   |   |   |
| ANIMAL ID                         | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0 | 0 | 0 |   |   |   |   |   |
|                                   | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0 | 0 | 0 |   |   |   |   |   |
|                                   | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2 | 2 | 2 |   |   |   |   |   |
|                                   | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 5                | 5                | 5                | 5                | 5                | 5                | 5                | 5                | 5                | 5                | 6                | 6                | 6                | 6                | 6                | 6                | 6                | 6                | 6                | 6                | 6                | 6                | 7                | 7 | 7 | 7 |   |   |   |   |   |
|                                   | 1                | 2                | 3                | 4                | 5                | 6                | 7                | 8                | 9                | 0                | 1                | 2                | 3                | 4                | 5                | 6                | 7                | 8                | 9                | 0                | 1                | 2                | 3                | 4                | 5                | 6                | 7                | 8                | 9                | 0                | 1                | 2                | 3 | 4 | 5 |   |   |   |   |   |
| Carcinoma, Metastatic, Tissue Nos | X                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   |   |   |   |
| Hemangiosarcoma                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear              | X                |                  |                  |                  |                  | X                |                  |                  | X                |                  |                  |                  |                  |                  | X                | X                | X                |                  |                  | X                |                  |                  |                  |                  |                  |                  | X                |                  | X                |                  |                  |                  |   |   |   |   |   |   |   |   |
| Thymus                            | M                | M                | +                | +                | +                | +                |                  | +                | +                | +                | +                | +                | +                | M                | +                | +                | +                | +                | +                | +                | +                | M                | M                | +                | M                | +                | M                | +                | M                | +                | M                | +                | M | + | + | + |   |   |   |   |
| Leukemia Mononuclear              |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   |   |   |   |
| <b>Integumentary System</b>       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   |   |   |   |
| Mammary Gland                     |                  |                  |                  | +                | +                |                  | +                |                  | +                | +                |                  |                  |                  | +                | +                | +                |                  |                  | +                |                  |                  |                  |                  | +                | +                |                  |                  | +                |                  |                  |                  |                  |   |   |   | + |   |   |   |   |
| Adenocarcinoma                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | X                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   |   |   |   |
| Fibroadenoma                      |                  |                  |                  |                  |                  | X                |                  | X                | X                |                  |                  |                  |                  |                  |                  | X                |                  |                  | X                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   |   |   |   |
| Fibroadenoma, Multiple            |                  |                  |                  |                  | X                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | X                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   | X |   |   |   |
| Inguinal, Fibroadenoma            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | X                | X                |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   |   |   |   |
| Skin                              |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   | + | + |   |   |
| Subcut Tiss, Fibroma              |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   | X |   |   |
| Subcut Tiss, Fibrosarcoma         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   |   |   |   |
| <b>Musculoskeletal System</b>     |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   |   |   |   |
| NONE                              |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   |   |   |   |
| <b>Nervous System</b>             |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   |   |   |   |
| Brain                             |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   | + |   |   |
| <b>Respiratory System</b>         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   |   |   |   |
| Lung                              |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   |   | + | + |
| Carcinoma, Metastatic, Tissue Nos | X                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 92004-01  
 Test Type: CHRONIC  
 Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: NTP 91/92 diet study  
 CAS Number: DIET9192

Date Report Requested: 10/20/2014  
 Time Report Requested: 18:17:57  
 First Dose M/F: NA / NA  
 Lab: NIEHS

F 344/N Rat Female  
 92F

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 3 | 6 | 7 |   |
|             | 0 | 2 | 2 | 2 | 3 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 6 | 2 | 7 | 0 | 2 | 6 | 2 | 2 | 0 | 2 | 2 | 6 | 8 | 1 | 2 |
|             | 1 | 6 | 9 | 9 | 1 | 7 | 1 | 7 | 7 | 7 | 9 | 9 | 9 | 7 | 9 | 8 | 0 | 8 | 3 | 8 | 6 | 0 | 6 | 6 | 1 | 9 | 9 | 0 | 4 | 7 | 9 |
| ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|             | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |   |
|             | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 |   |
|             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |

|                              |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Leukemia Mononuclear         | X |   |   |   | X |   |  | X |   |   |   |   |   |   | X |   | X |   |   |   | X |   |   |   |   |   |   |   |   |   |   |  |
| <b>Special Senses System</b> |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Eye                          |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Urinary System</b>        |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Kidney                       |   | + | + | + | + | + |  |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear         |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   | X |   |   |   |   |   |   |   |   |  |
| Sarcoma                      |   |   |   |   |   |   |  |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Urinary Bladder              |   | + | + | + | + | + |  |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear         |   | X |   |   |   | X |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>SYSTEMIC LESIONS</b>      |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Multiple Organ               |   | + | + | + | + | + |  |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Leukemia Mononuclear         |   | X |   |   |   | X |  |   | X |   |   |   |   | X | X | X |   |   | X |   |   |   | X |   | X |   |   |   |   |   |   |  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 92004-01  
 Test Type: CHRONIC  
 Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: NTP 91/92 diet study  
 CAS Number: DIET9192

Date Report Requested: 10/20/2014  
 Time Report Requested: 18:17:57  
 First Dose M/F: NA / NA  
 Lab: NIEHS

F 344/N Rat Female  
 92F

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 |
|             | 2 | 0 | 2 | 7 | 4 | 2 | 2 | 2 | 7 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 |
|             | 9 | 1 | 9 | 3 | 0 | 1 | 8 | 8 | 2 | 6 | 6 | 2 | 2 | 5 | 7 | 7 | 7 | 4 | 7 | 9 | 5 | 9 | 9 | 9 | 8 | 8 | 8 |
| ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
|             | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
|             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

**Alimentary System**

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intestine Large, Cecum |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Liver                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hepatocellular Adenoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear   |   |   | X | X |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mesentery              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   | + |   |   |   |
| Pancreas               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M |
| Leukemia Mononuclear   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**Cardiovascular System**

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |

**Endocrine System**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear                     |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adrenal Medulla                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + |
| Leukemia Mononuclear                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pheochromocytoma Benign                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Islets, Pancreatic                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M |
| Leukemia Mononuclear, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Parathyroid Gland                        | + | + | M | + | + | + | + | + | + | + | + | M | M | + | M | + | + | + | + | M | M | M | + | + | + | + | + |
| Pituitary Gland                          | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:57

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Female<br>92F           | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|-------------------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                     | 0729        | 0729   | 0729   | 0674   | 0562   | 0677   | 0777   | 0577   | 0777   | 0272   | 0272   | 0665   | 0777   | 0777   | 0677   | 0777   | 0677   | 0777   | 0575   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   |
| ANIMAL ID                           | 002772      | 002773 | 002774 | 002775 | 002776 | 002777 | 002778 | 002779 | 002780 | 002781 | 002782 | 002783 | 002784 | 002785 | 002786 | 002787 | 002788 | 002789 | 002790 | 002791 | 002792 | 002793 | 002794 | 002795 | 002796 | 002797 | 002798 | 002799 |
| Pars Distalis, Adenoma              |             | X      |        |        | X      | X      | X      |        | X      | X      | X      |        | X      | X      | X      |        |        |        | X      |        |        |        |        |        |        |        |        | X      |
| Pars Distalis, Leukemia Mononuclear |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Thyroid Gland                       | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      |
| C Cell, Adenoma                     |             |        |        | X      | X      |        |        |        | X      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | X      |
| C Cell, Carcinoma                   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>General Body System</b>          |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| NONE                                |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Genital System</b>               |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Clitoral Gland                      |             |        |        |        |        |        |        |        | +      |        |        | +      |        |        |        |        |        |        |        |        |        |        |        |        |        | +      | +      | +      |
| Adenoma                             |             |        |        |        |        |        |        |        |        |        |        | X      |        |        |        |        |        |        |        |        |        |        |        |        |        | X      | X      |        |
| Fibroma                             |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Squamous Cell Papilloma             |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Ovary                               | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      |
| Leiomyoma                           |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Leukemia Mononuclear                |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Uterus                              | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      |
| Endometrium, Polyp Stromal          |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Hematopoietic System</b>         |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Lymph Node, Mesenteric              | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      |
| Leukemia Mononuclear                |             |        |        | X      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Spleen                              | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
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Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:57

First Dose M/F: NA / NA

Lab: NIEHS

| F 344/N Rat Female<br>92F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           |             |   | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 |
|                           |             | 2 | 0 | 2 | 7 | 4 | 2 | 2 | 2 | 7 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
|                           |             | 9 | 1 | 9 | 3 | 0 | 1 | 8 | 8 | 2 | 6 | 6 | 2 | 2 | 5 | 7 | 7 | 7 | 4 | 7 | 9 | 5 | 9 | 9 | 9 | 8 | 8 | 8 |
|                           | ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           |             | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
|                           |             | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
|                           |             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carcinoma, Metastatic, Tissue Nos |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hemangiosarcoma                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Leukemia Mononuclear              |   |   |   | X | X |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thymus                            | + | M | + | + | + | + | + | + | M | M | M | M | + | M | M | + | + | + | + | + | M | + | M | + | + | + | + | M | M |
| Leukemia Mononuclear              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Integumentary System</b>       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mammary Gland                     |   | + |   | + |   | + | + |   | + |   | + | + |   |   |   |   |   | + | + | + |   |   |   |   |   | + |   | + | + |
| Adenocarcinoma                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fibroadenoma                      |   |   | X |   | X |   | X | X |   | X |   | X | X |   |   |   |   | X | X | X |   |   |   |   | X |   | X | X |   |
| Fibroadenoma, Multiple            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inguinal, Fibroadenoma            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Skin                              |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Subcut Tiss, Fibroma              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Subcut Tiss, Fibrosarcoma         |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Musculoskeletal System</b>     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| NONE                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Nervous System</b>             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Brain                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Respiratory System</b>         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lung                              |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Carcinoma, Metastatic, Tissue Nos |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:57

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female  
92F**

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 |
|             | 2 | 0 | 2 | 7 | 4 | 2 | 2 | 2 | 7 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
|             | 9 | 1 | 9 | 3 | 0 | 1 | 8 | 8 | 2 | 6 | 6 | 2 | 2 | 5 | 7 | 7 | 7 | 4 | 7 | 9 | 5 | 9 | 9 | 9 | 8 | 8 | 8 |
| ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
|             | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
|             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

|                              |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Leukemia Mononuclear         |  |   |   | X |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Special Senses System</b> |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Eye                          |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Urinary System</b>        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Kidney                       |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear         |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Sarcoma                      |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Urinary Bladder              |  | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear         |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>SYSTEMIC LESIONS</b>      |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Multiple Organ               |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear         |  |   |   | X | X |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
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Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:17:58

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

92F

ANIMAL ID

\*TOTALS

**Alimentary System**

|                        |    |
|------------------------|----|
| Intestine Large, Cecum | 1  |
| Liver                  | 59 |
| Hepatocellular Adenoma | 1  |
| Leukemia Mononuclear   | 12 |
| Mesentery              | 2  |
| Pancreas               | 57 |
| Leukemia Mononuclear   | 2  |

**Cardiovascular System**

|                      |    |
|----------------------|----|
| Heart                | 59 |
| Leukemia Mononuclear | 3  |

**Endocrine System**

|  |    |
|--|----|
| Adrenal Cortex                           | 59 |
| Leukemia Mononuclear                     | 3  |
| Adrenal Medulla                          | 58 |
| Leukemia Mononuclear                     | 2  |
| Pheochromocytoma Benign                  | 1  |
| Islets, Pancreatic                       | 57 |
| Leukemia Mononuclear, Metastatic, Spleen | 1  |
| Parathyroid Gland                        | 37 |
| Pituitary Gland                          | 57 |
| Pars Distalis, Adenoma                   | 27 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

**Experiment Number:** 92004-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
**Test Compound:** NTP 91/92 diet study  
**CAS Number:** DIET9192

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 18:17:58  
**First Dose M/F:** NA / NA  
**Lab:** NIEHS

DAY ON TEST

**F 344/N Rat Female**  
**92F**

ANIMAL ID

**\*TOTALS**

|                                     |    |
|-------------------------------------|----|
| Pars Distalis, Leukemia Mononuclear | 2  |
| Thyroid Gland                       | 56 |
| C Cell, Adenoma                     | 4  |
| C Cell, Carcinoma                   | 1  |
| <b>General Body System</b>          |    |
| NONE                                |    |
| <b>Genital System</b>               |    |
| Clitoral Gland                      | 7  |
| Adenoma                             | 4  |
| Fibroma                             | 1  |
| Squamous Cell Papilloma             | 2  |
| Ovary                               | 59 |
| Leiomyoma                           | 1  |
| Leukemia Mononuclear                | 2  |
| Uterus                              | 59 |
| Endometrium, Polyp Stromal          | 5  |
| <b>Hematopoietic System</b>         |    |
| Lymph Node, Mesenteric              | 59 |
| Leukemia Mononuclear                | 7  |
| Spleen                              | 59 |
| Carcinoma, Metastatic, Tissue Nos   | 1  |
| Hemangiosarcoma                     | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 92004-01

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DAY ON TEST

**F 344/N Rat Female  
92F**

ANIMAL ID

**\*TOTALS**

|                                   |    |
|-----------------------------------|----|
| Leukemia Mononuclear              | 13 |
| Thymus                            | 40 |
| Leukemia Mononuclear              | 1  |
| <b>Integumentary System</b>       |    |
| Mammary Gland                     | 26 |
| Adenocarcinoma                    | 1  |
| Fibroadenoma                      | 18 |
| Fibroadenoma, Multiple            | 4  |
| Inguinal, Fibroadenoma            | 2  |
| Skin                              | 3  |
| Subcut Tiss, Fibroma              | 1  |
| Subcut Tiss, Fibrosarcoma         | 1  |
| <b>Musculoskeletal System</b>     |    |
| NONE                              |    |
| <b>Nervous System</b>             |    |
| Brain                             | 1  |
| <b>Respiratory System</b>         |    |
| Lung                              | 59 |
| Carcinoma, Metastatic, Tissue Nos | 1  |
| Leukemia Mononuclear              | 8  |
| <b>Special Senses System</b>      |    |

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DAY ON TEST

F 344/N Rat Female  
92F

ANIMAL ID

\*TOTALS

|                         |    |
|-------------------------|----|
| Eye                     | 2  |
| <b>Urinary System</b>   |    |
| Kidney                  | 59 |
| Leukemia Mononuclear    | 2  |
| Sarcoma                 | 1  |
| Urinary Bladder         | 57 |
| Leukemia Mononuclear    | 2  |
| <b>SYSTEMIC LESIONS</b> |    |
| Multiple Organ          | 59 |
| Leukemia Mononuclear    | 13 |

\*\* END OF REPORT \*\*

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I ..Insufficient tissue

M ..Missing tissue  
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